

## CHAPTER 3 – SAFE VEHICLE OPERATION AND TRAFFIC LAWS

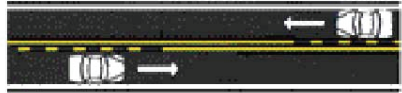
The most important rule for safe driving is to **pay attention to the road!** Even the most experienced drivers are often distracted while driving. Always anticipate potential problems. A good defensive driver looks out for the actions of other drivers.

### Driving Lanes and Lane Markings

Driving lanes and lane markings help separate traffic going in opposite directions. On busier roads, they are a guide for multiple lanes of traffic going in the same direction. Remember to stay in your travel lane, except to turn or pass.

#### Yellow Lane Markings

Yellow lane markings are found on or near the center of a road and are used to divide two-way traffic. If there is a double yellow line or a solid yellow line on your side of the road, never drive to the left of the solid yellow line, except to turn.



#### White Lane Markings and Changing Lanes

White lane markings are used to separate multiple lanes of traffic going in the same direction. You should not cross a solid white line. Most multiple lane roads have broken white lines to separate lanes. A broken white line indicates that a driver may change lanes when it is safe to do so. Follow these rules when changing lanes:

- First, make sure traffic directly ahead is clear.
- Check mirrors for vehicles following behind that are about to pass.
- Briefly turn head in the preferred direction to ensure that no vehicle is in the “blind spot” and that there is sufficient room to move into the adjacent lane.
- Use signals to alert other drivers of intention to change lanes.
- Smoothly move into the new driving lane.
- Only change one lane at a time.



When changing lanes to prepare for a turn, do so at least 200 feet before the turn. Do not weave in and out of lanes, which greatly increases risk of an accident. On the highway, slower vehicles should use the lane to the right. Leave the left-hand lane for faster moving or passing vehicles.

# RULES FOR SAFE AND LEGAL TURNS

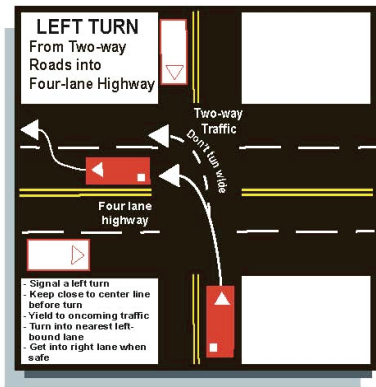
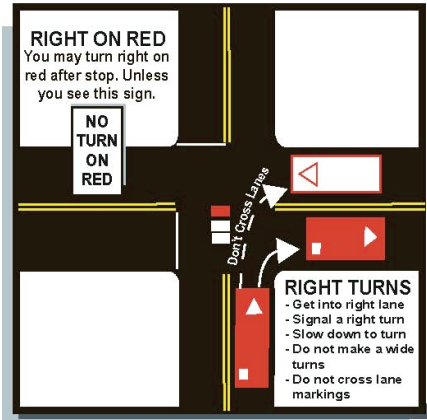
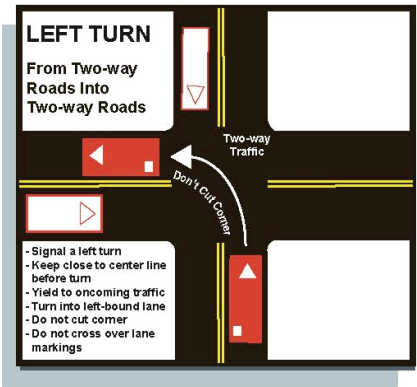
Many accidents can be avoided by following rules and making proper turns. Always anticipate when it will be necessary to turn. It is always helpful to consult a map in advance of traveling to avoid last-minute decisions if traveling on unfamiliar roads.

## Turning From and Into the Proper Lane

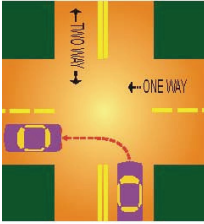
The first rule for a safe and legal turn is to move into the proper lane well before the turn. To turn left, be in the far left lane for your direction of travel. To turn right, be in the far right lane for your direction of travel.

**SAFETY TIP:** An easy way to remember proper lane positioning for a turn is “left turn, left lane” and “right turn, right lane.”

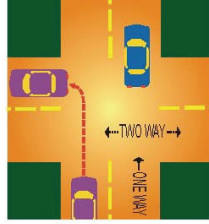
The Following Diagrams Illustrate a Proper Turn.



Turning left from a two-way street onto a one-way street



Turning left from a one-way street onto a two-way street

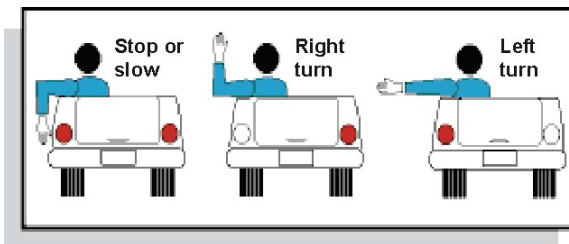


Turning left from a One-way street to a One-way street



## Signaling Your Intention to Turn

Give a proper turn signal at least 200 feet before turning or changing lanes. If the speed limit is 50 miles per hour or more, give a proper turn signal at least 300 feet before turning or changing lanes. The safest type of signal is using the lighted signals used in most vehicles. If, however, one or more of these signals is malfunctioning, the hand signals (except on driving tests) illustrated below may be used:



## Turning at Intersections

When making a turn at an intersection, you must follow the rules of traffic control devices, and always watch for pedestrians! Never force a pedestrian to make a special effort to avoid your car when turning. If a stop at the intersection is required before turning, keep the vehicle's front wheels pointed straight and apply the brakes before proceeding.

## Legal Right Turns When a Traffic Signal is Red

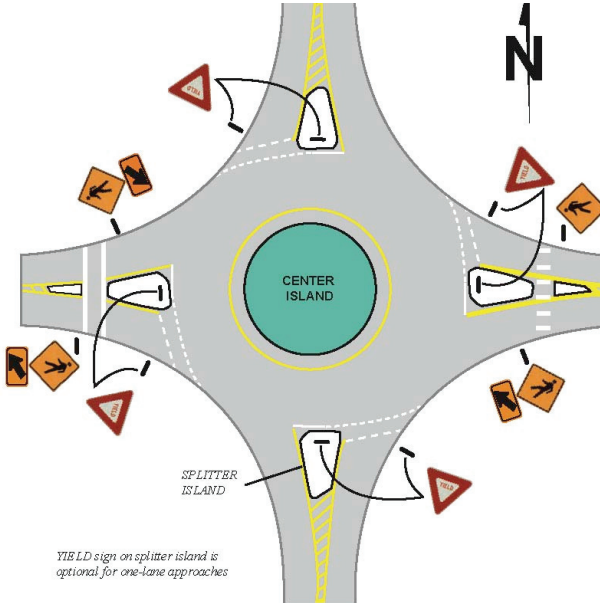
For better traffic flow, Indiana and most other states allow a driver to turn right at an intersection – in limited circumstances – when a traffic signal is red. A legal turn may only be made if all of the following criteria are met:

- The driver comes to a complete and full stop at the traffic light.
- The driver makes sure there are no vehicles or pedestrians in the path of the turn.
- The driver does not interfere with the right-of-way of any vehicle or pedestrian who is moving in the direction of the turn, and
- The driver follows the other rules pertaining to turns, such as using correct lanes.

## Roundabouts

A roundabout is a circular intersection that is designed to meet the needs of all road users (i.e., drivers, pedestrians, and bicyclists). A roundabout eliminates some traffic conflicts, such as left turns, that cause crashes at traditional intersections. Because roundabout traffic enters or exits only through right turns, collisions that do occur typically are less severe than those at conventional intersections. A roundabout's incoming traffic always yields to the circulating traffic.

### Example of Markings for Roundabout Intersection with One-Lane Approaches:



## Special Exception for Left Turns

When the traffic signal is red and if the driver is on a one-way street and wishes to turn left onto another one-way street, a legal turn may be made, if the driver follows the rules listed above for turning on red. This is the only circumstance in which a driver may make a legal left turn against a red traffic signal.

## U-Turns

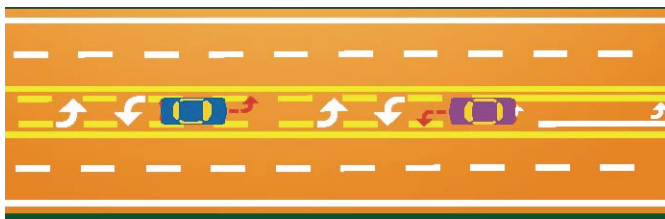
A U-turn is a potentially dangerous maneuver that should only be undertaken when absolutely necessary. Obey the following rules:

- Always yield the right-of-way to oncoming vehicles and to any pedestrians.
- Never make a U-turn on any curve in the road or when approaching or nearing the crest of a hill or grade.
- Never make a U-turn on an interstate highway; simply proceed to the next exit and re-enter the highway in the opposite direction. Never make a U-turn when a sign is posted prohibiting it.

## Turning Left From Specially Designated Center Lane

Busy roads on which there are many places a vehicle may make a left turn have a center lane designated solely for left-turning vehicles. Use these center lanes to decelerate and turn left if available. Always be aware that vehicles traveling in the opposite direction may be entering the center to turn left in front of your vehicle. **Never use this type of center lane for passing or overtaking other vehicles.** Designated center lanes for left turns can be identified by a sign with alternate directional arrows stating “CENTER LANE ONLY” or pavement arrows.

**NOTE:** Pavement arrows in center lanes are not always installed.



## Following Turning Vehicles

When following a driver who has signaled his or her intention to make a turn or who has slowed down and may be looking to make a turn, drive defensively. Always slow down, and be prepared to stop.

## Rules for Passing / Utilizing Left-Hand Side of the Road

Using the left-hand side of the road to pass vehicles is potentially dangerous because a serious accident can occur. Always consider the need to pass.

### Passing Prohibited

It is illegal and extremely dangerous to attempt to pass in the following situations:

- A yellow solid line is marked on the driver's side of the center line of the road.
- A yellow pennant-shaped “No Passing Zone” sign is posted on the left-hand side of the road or a white rectangular “Do Not Pass” sign is posted on the right-hand side of the road.
- When on or approaching a curve.
- When approaching the crest of a hill or grade.
- Within 100 feet of an intersection, railroad crossing, bridge, viaduct or tunnel.

### Requirements for Making a Safe and Legal Pass

- Make absolutely sure the passing lane is clear of traffic. Drivers are required to return to the right side of the road no less than 100 feet before any approaching vehicle.

- Check behind and to the left to make sure another car is not attempting to pass your vehicle.
- Give an appropriate turn signal.
- Move into the passing lane, then accelerate, and continue to move forward until the vehicle passed can be seen in the rearview mirror.
- Before returning to the original driving lane, give the appropriate turn signal.

### When Being Passed

If your vehicle is being passed on the left-hand side of the road, allow the vehicle to pass safely, and do not increase your speed.

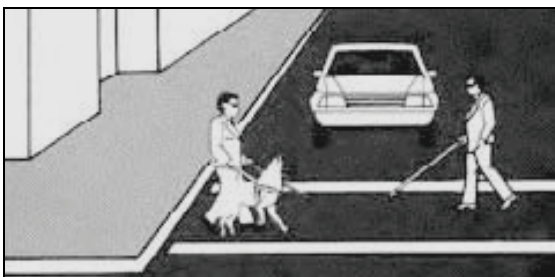
### Pedestrian Safety

Crosswalks or a pedestrian signal indicates that pedestrians are nearby. Please follow these rules and guidelines when pedestrians are in the vicinity:

- Always yield the right-of-way to pedestrians.
- Do not make a turn that causes a pedestrian to stop, slow down or make some other special effort to avoid a collision.
- If children are in the vicinity, take special care, because children are not fully aware of the dangers of traffic.
- Be respectful of others who have difficulty in crossing streets, such as elderly persons or persons with a visual disability.

### Blind Pedestrians

Traveling aids for a person who is blind are often a white cane or a trained guide dog. Independent travel for people with visual disabilities involves some risk that can be greatly reduced when you, the driver, are aware of the use and meaning of a white cane or guide dog. Drivers always yield the right of way to persons who are blind.



When a pedestrian is crossing a street or highway and guided by a dog or carrying a white cane (or a white cane with a red tip), **vehicles must come to a complete stop.**

## Parking Rules / Parallel Parking

Parallel parking is simple and easy when drivers follow this procedure:

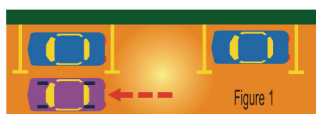


Figure 1

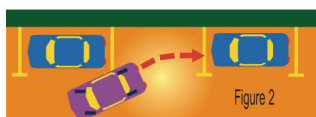


Figure 2

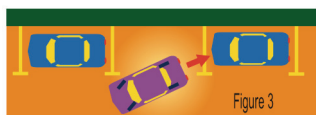


Figure 3

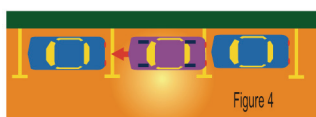
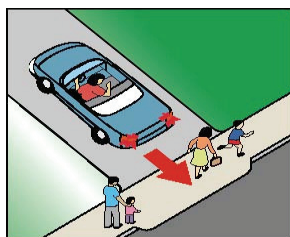


Figure 4

1. Signal intention to park.
2. Position the vehicle parallel with the vehicle parked in front of the empty space and maintain at least two feet from this vehicle. (Figure 1).
3. Align the rear bumpers of both vehicles. (Figure 1).
4. Back up slowly until the front of the vehicle is even with the front door of the parallel car. Turn the wheel sharply to the right and back up slowly until the vehicle is at a 45-degree angle, and back up. When the front of the vehicle passes the rear of the parallel car, turn wheel to the left sharply, then gradually, while backing in. (Figure 2 & 3).
5. Straighten the wheels, pull forward. (Figure 4).
6. When parked facing downhill, turn the wheels toward the curb. When parked facing uphill, turn the wheels away from the curb. When no curb, turn wheels away from the street.
7. Use turn signal when entering traffic from a parking space.



## Backing

Backing is more difficult for the beginner than driving forward because the field of vision is blocked by the vehicle itself. It's also harder to control speed and direction. You will need a lot of practice to keep absolute control of the vehicle. Be sure to look in both directions and double-check for cars and pedestrians when backing out of a parking place.

To back up, turn body to the right to see through the back window. Never use only the rearview mirror for backing up. Always go slowly, watching carefully in all directions. Never back into an intersection in order to turn around. It's much safer to drive around the block.

**SAFETY TIP:** Always check behind your vehicle for bikes and small children before you enter your vehicles. This is especially important for vans and pickups.

Parking in the following areas is prohibited:

- Highways (unless indicated otherwise).
- Intersections or pedestrian crosswalks.
- On sidewalks.
- In front of any driveway.
- Within 15 feet of a fire hydrant or in fire lanes.
- Underpasses or bridges.
- Adjacent to yellow curbs.
- Beside another parked vehicle.

## **SPEED LIMITS**

### **Maximum Speed Limits**

Indiana law requires that drivers operate a vehicle at the posted speed limit. As discussed below, there are a number of road conditions that could cause a driver to be more cautious and drive at slower speeds.

### **Maximum Speed in Special Situations**

Effective July 1, 2005, pursuant to IC 9-21-5-2, a person may not drive a vehicle on a highway at a speed in excess of the following maximum limits:

**Rural Interstate Highway:** defined as outside an urbanized area with a population of at least 50,000:

- |                                |                     |
|--------------------------------|---------------------|
| • Passenger Vehicles:          | 70 mph or as posted |
| • Trucks 26,000 + pounds:      | 65 mph or as posted |
| • Rural State Divided Highway: | 60 mph or as posted |

**Urban:** defined as inside an area with a population of at least 50,000:

- |                                 |                     |
|---------------------------------|---------------------|
| • Urban Interstate Highway:     | 55 mph or as posted |
| • Non-Divided State Highway:    | 65 mph or as posted |
| • County Roads:                 | 55 mph or as posted |
| • Most urban residential areas: | 30 mph or as posted |
| • Alley:                        | 15 mph or as posted |

### **School Bus Limits:**

A person may not operate a school bus or a special bus at a speed greater than:

- 60 mph on a federal or state highway, or
- 40 mph on a county or township highway.

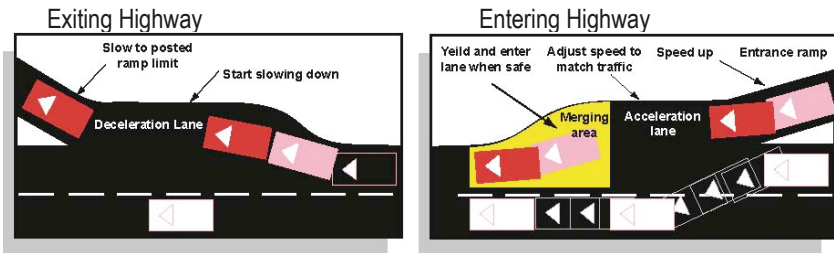
If the posted speed limit is lower than the absolute limits set in this section, or if the absolute limits do not apply, the maximum lawful speed of a bus is the posted speed.



## SAFE DRIVING ON HIGHWAYS

Though designed for safety, interstate highways pose risks for drivers that do not follow the rules of the road and safe driving techniques.

- **Speed:** Excessive speed greatly increases the likelihood of an accident. A driver has much less time to react to unexpected actions of other drivers or potential roadway hazards.
- **Alertness:** Because a driver has less time to react, alertness is very important to anticipate problems before a driver comes upon hazardous situations. Watch for signs of fatigue that tell the driver that he or she should let someone else drive or to exit the highway to rest.
- **Planning Ahead:** Consult maps or get directions to the destination prior to departure. A driver who tries to read every exit sign to attempt to determine where to get off of the highway cannot devote sufficient attention to traffic conditions.
- **Merging:** Good judgment and timing are needed to merge smoothly with fast-moving traffic. Upon entering an interstate on-ramp, stay to the right and increase speed in the acceleration lane to allow your car to merge with the traffic when the path is clear. Drivers already on the interstate should, for their own safety, make allowance for those entering. However, it is a driver's responsibility to yield the right-of-way to other cars on the interstate.



### Special Interstate Traffic Prohibition

- **Backing Up:** It is illegal to back up on an interstate highway to reach a missed exit. If you miss an exit, you must drive to the next exit.
- **U-turns:** It is illegal for any vehicle, other than an emergency vehicle or a highway maintenance vehicle, to make a U-turn by crossing the median of an interstate highway.
- **Stopping on Shoulder:** Except in the event of an emergency or a disabled vehicle, do not stop or park a vehicle on the shoulder of an interstate highway.
- **Large Trucks:** Trucks are restricted to the right lane on sections of interstate with two lanes in one direction and the right two lanes on sections of interstate with three lanes or more in one direction.

## Maximum Speed Limits in Special Situations

- **School Zones:** In the vicinity of a school, a driver must slow down to the lower posted speed limit for the school zone. Common hours are between 7:00 a.m. and 4:30 p.m., Monday through Friday. Local authorities may establish lower speed limits for school zones when children are present.
- **Highway Work Zones:** Worksite speed limits must be 10 mph below the maximum established speed limit. The maximum speed limit in a highway work zone may not exceed 45 mph in any location.
- **School Buses:** When not operating on an interstate, federal or a state highway, the maximum speed limit for a school bus is 40 mph unless the posted speed limit is lower. The maximum speed limit 60 mph while on a federal or state highway.

## Conditions that Cause Drivers to Use Slower Speeds

Excessive speed, even when conditions are ideal, is dangerous and increases the likelihood of an accident. Driving at or in excess of the posted speed limit under the following roadway conditions is even more dangerous:

- Bad weather and poor visibility.
- Slick or icy roads.
- Worn tires.
- Unsafe vehicle conditions.
- Impaired physical condition.
- Overdriving headlights.
- Hazardous conditions on road surface.

## Speed and the Ability to Stop a Vehicle

The following chart provides an indication of just how fast a vehicle travels in one second at 35, 55, and 65 miles per hour:

Speed	35 mph	55 mph	65 mph
Feet traveled in one second	51.3	80.7	95.3
Lanes of traffic crossed in one second	2.6	4.0	4.7
Seconds to travel a football field	5.8	3.7	3.1

## Following Distance

A good rule for drivers to follow is to stay at least two to three seconds behind the vehicle ahead. When following a vehicle, watch for the vehicle ahead to pass a fixed object and estimate how much time elapses before passing the object.

Remember: A vehicle in front may stop for any number of reasons at any time; a defensive driver is prepared to respond to the unanticipated actions of other drivers.

**Vehicle Braking Capability:** This refers to the vehicle's ability to come to a complete stop once the brakes have been applied. Many factors affect a vehicle's ability to stop:

- Speed of vehicle,
- Weight of vehicle,
- Type and condition of brakes.
- Type and condition of tires.
- Physical condition of pavement.
- Slickness of pavement.
- Grade of road.

One in twenty people require more than two seconds to react to hazards. If a driver does not brake with the same intensity as the vehicle in front, the gap will quickly close between the cars. In any case, there is no guarantee that the vehicle in front will break in time to avoid the hazard. Thus, we recommend a distance of at least two to three seconds between cars.

**Remember: Seat Belts Save Lives!**

## SAFETY BELTS AND CHILD SAFETY RESTRAINTS

Safety belts and child safety restraints (i.e., car seats) save thousands of lives each year and improve the chances of surviving a crash by 60 percent. Indiana law requires that a driver and front-seat passengers use seat belts at all times when a vehicle is operated.

Pursuant to IC 9-19-10-2, a motor vehicle must be equipped with a safety belt for each occupant and the safety belt must:

- Meet the standards stated in the Federal Motor Vehicle Safety Standard Number 208 (49 CFR 571.208, and
- Be standard equipment installed by the manufacturer.

**NOTE:** *Even if a vehicle has one or more air bags, a safety belt should be used. The air bag is designed to work in tandem with the safety belt to slow the car's occupant down in the event of a collision. Failure to use a safety belt could result in injury to the occupant from the air bag.*

## Safety Belts

All front seat occupants of passenger motor vehicles manufactured in 1964 or thereafter are required by law to use safety belts. Operators of buses are also required to use a safety belt.

### Seat Belt Exceptions:

- Persons who should not wear a safety belt for medical reasons (and must carry the medical statement from a doctor).
- Certain commercial, postal and newspaper carriers who have to make frequent stops to deliver goods and services.
- BMV Driver Examiners while conducting a drive test.

### Child Passenger Restraint Systems

A person operating a motor vehicle with a child passenger under age eight is required by law to properly secure the child in a child restraint system (i.e., child car seat or booster seat), unless it is reasonably determined that the child cannot fit in a child restraint system. Then the child is required by law to be properly restrained by a safety belt. The law requires children between age 8 and 15 to use a seatbelt.

### Passenger Air Bags

The explosive power of an air bag has killed children and elderly adults less than 5 feet tall. If a car is equipped with an air bag on the passenger side, the National Safety Council recommends putting children under the age of 12 in the back seat.

## SAFE VEHICLE OPERATION IN SPECIFIC SITUATIONS

### Night Driving

Operating a vehicle at night presents a number of potential problems. These problems can be made worse if the driver is not used to operating a vehicle at night or when other adverse conditions exist.

- **Visibility:** Pedestrians, road markings, and other vehicles are more difficult to identify and recognize at night. Under nighttime driving conditions, the driver should reduce normal speed, especially on unfamiliar roads. The glare of oncoming headlights may also reduce vision. To avoid the effects of glare, drivers should not look directly into the lights of an approaching vehicle but should focus on the right side of the road.
- **Fatigue:** Drivers are more likely to be fatigued while driving at night and have a higher risk for accidents. Avoid driving late at night, if possible, or at any time without enough sleep. Be prepared to stop driving if unable to stay alert. Better to arrive late than to risk a life.

### Signs of Excessive Fatigue While Driving

- Trouble focusing your vision.
- Having no memory of the last few minutes of your drive.
- Beginning to drift out of your lane.
- Failing to maintain a constant speed.
- Head nodding and actually feeling as though you are about to fall asleep.

The best thing to do if feeling drowsy is to let another person drive or find a safe area to pull over and rest. A driver's efforts to stay awake when excessively fatigued, such as rolling down the windows, turning up the radio, etc., are usually ineffective and may give a false sense of alertness. This puts all drivers at a greater risk for an accident.

- **Use of Headlights:** Drivers must use headlights between sunset and sunrise as well as at any other time in which visibility is less than five hundred (500) feet. Lower headlight beams must be used when approaching within 500 feet of an oncoming vehicle or when following within 200 feet of the rear of another vehicle.
- **Pedestrian Safety:** Pedestrians, walking along a roadway that does not have a sidewalk, should walk facing the oncoming traffic. When walking along a highway at night or under darkened conditions, pedestrians should wear light colored clothing or carry something that will reflect light.

### Driving in Certain Weather Conditions

- **Winter Driving:** Driving in winter weather presents a number of dangers due to ice, snow and very cold temperatures. **Always clear windows before driving.**
- **Driving in Icy Conditions:** Ice on the roadway is a potentially dangerous condition that can cause a vehicle to lose traction.
- **Skids:** Sudden turns, lane changes or hard braking can throw a vehicle into a skid. The procedure for correcting a skid is the same for both front-wheel-drive vehicles and rear-wheel-drive vehicles. If your vehicle begins to lose traction and the rear wheels begin sliding sideways, ease off the gas pedal. Do not make a fast turn away from the direction of the skid and do not over steer. This will cause a spin.

**What to Do:** For a vehicle with conventional brakes, turn the steering wheel in a controlled manner in the direction the rear of the car is sliding. When traction is regained, straighten the vehicle and proceed slowly. In any emergency situation for a vehicle equipped with an anti-lock brake system (ABS), keep foot on the brake pedal, maintaining firm and continuous pressure while steering normally. Do not pump the brakes. A mechanical sound or noise and vibration or increased resistance in the brake pedal indicates that ABS is working. Just hold the brake pedal down and let the anti-lock system work for you. Remember to always allow more time to stop on icy roads.

- **Driving in Snow:** Snow, especially when mixed with significant wind, poses a number of problems for drivers. Visibility may be substantially reduced. Watch for drifting snow, particularly in rural areas where only a few inches of snow can cause roads to become impassable. Always watch for icy conditions when there is snowfall on the ground, particularly at intersections. Use headlights to be seen by other drivers.

- **Driving in Extremely Cold Conditions:** Always allow a vehicle engine plenty of time to warm up before driving in very cold conditions.

### Winter Driving Tips

- Drive with a full tank of gas so that if stranded, the heater can remain in use for as long as possible.
  - Be aware that moisture on ramps, bridges and overpasses may occasionally freeze before other sections of the driving roadway.
  - Turn on your lights to see and be seen.
  - Brush the snow off your head lights and tail lights frequently.
  - Stay a safe distance behind snowplows.
  - Carry sand or strips of carpet for traction in case you are stuck.
  - Carry a winter survival kit in your vehicle (i.e., booster cables, blankets, shovel, flashlight, extra clothing, candles, matches, nonperishable snack food and bottled water).
- **Driving in Rain:** Headlights should be used to be seen by other drivers. Wet roadway surfaces can be dangerously slick, especially immediately following a rainfall due to oil and dirt build up on the road. If driving through water puddles, test brakes by pumping them. This will also help to dry them. If the water is deeper than the tire tread, slow down. When driving on wet roads, due to a phenomenon known as **hydroplaning**, a vehicle is actually traveling on a thin layer of oil, dirt and water. It increases with speed, and at a point, the tires may be totally on the water. If this happens, there is no friction to brake, speed up, or corner. A gust of wind, a change of road level, or a slight turn can create a **skid**. Do not drive on bald or badly worn tires. Slow down when there is heavy rain, standing water or slush on the road. Always allow additional time to stop.



**SAFETY TIP:** To avoid hydroplaning, drive with properly inflated tires.

- **Driving in Fog:** Fog can greatly reduce visibility of other vehicles, pedestrians, and traffic signals. Drive cautiously and at reduced speeds. **Do not** use high headlight beams. Low headlight beams better illuminate the road and objects ahead. If fog closes in completely, and visibility is reduced to near zero, carefully pull off the road as far as possible, and stop. Headlights and flashing emergency signals should be turned on while driving in fog.



## RAILROAD CROSSINGS

People lose their lives or suffer tragic injuries due to train and vehicle collisions. The cause for such collisions is the disregard of railroad warnings by drivers.

- **Who Must Stop:** All vehicles carrying passengers for hire, all buses carrying passengers, and all vehicles carrying explosives or flammable liquids. Such vehicles must stop not closer than 15 feet or further than 50 feet from the nearest rail. This requirement does not apply to abandoned railroad tracks.
- **Watch for Railroad Crossing Signs:** Railroad crossing signs signal a driver to slow down, look, listen and be prepared to stop for a train. Crossing signs include the yellow, round railroad crossing sign, pavement markings, the railroad cross-buck sign, red flashing light signals, and often, crossing gates.
- **Railroad Crossing Stop Signs:** When approaching a railroad crossing at which a stop sign is posted, a driver must come to a complete stop and proceed over the tracks only after looking both ways to make sure a train is not approaching. Never assume because there is only a stop sign that a train is not coming.
- **Safety Guidelines for Railroad Crossings:**
  - **Obey the Warning Signs:** Due to the size of trains, the actual speed of a train can be very deceiving. Under no circumstances should you attempt to race a train to a crossing. Never drive around a crossing gate that is extended down.
  - **Avoid Stopping on the Railroad Tracks:** A driver should never begin to cross railroad tracks unless the tracks can be cleared without stopping. If a vehicle stalls on the tracks, all occupants should leave the vehicle immediately. Look to see that no train is approaching the crossing, and carefully proceed to have the vehicle removed safely from the tracks.
  - **Watch for Additional Trains:** Where there is more than one track, a driver waiting for the track to clear must make sure another train is not coming on the other track once the first train has cleared. Be careful that a train is not proceeding in the opposite direction behind the first train.

**NOTE:** All school buses are required to stop at all railroad crossings.

## SHARING THE ROAD



### Emergency Vehicles

- **Ambulances, Police Vehicles, Fire Vehicles, and Rescue Vehicles:** These vehicles are permitted to display a red flashing light, and drivers must:
  - Yield the right-of-way to that vehicle.
  - Always listen for sirens on these vehicles and yield the right-of-way. The siren is usually heard before the emergency vehicle is in view.
  - Slow down, pull to the right of the road, and stop until the emergency vehicle passes.
- **A Stationary Emergency Vehicle with Flashing Lights:** A driver must slow down and move into a lane that is not adjacent to the emergency vehicle, if it is possible to do so safely. If it is not possible to do so safely, a driver must then reduce the speed of the vehicle and proceed with caution.
- **Volunteer Firefighter Vehicles:** Privately-owned vehicles, which display a flashing blue light, are used by volunteer firefighters responding to an alarm. The driver should yield the right-of-way to these vehicles.
- **Emergency Medical Vehicles:** A flashing green light on a privately-owned vehicle is used by a certified emergency medical technician responding to an emergency. A driver must yield the right-of-way to these vehicles.

### Highway Construction and Maintenance Areas

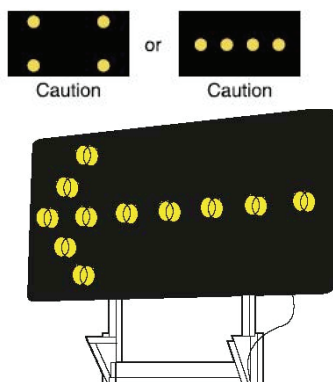
Highway work zones pose dangers both for drivers and for the workers.. Be respectful of these dangers, and exercise caution whenever traveling in a highway work zone.

**Worksite Speed Limits:** The highest legal posted speed limit in a designated highway work site is 45 miles per hour and may be posted lower than that. The following diagrams illustrate common work site speed limit signs:





**Flashing Arrow Boards:** These signals direct traffic to a specific lane(s) when one or more lanes are under construction. Carefully move to the lane indicated by the flashing arrow board, but do not move into a lane of oncoming traffic. Flashing arrow boards are often used to indicate a detour or “crossover.” In these cases, lane markings on the road, traffic cones, barrels or barricades will outline the path a vehicle must follow. A flashing arrow board not indicating a direction either way is a signal to use caution but does not require a driver to move to another lane.



**Manual Traffic Control at Worksites:** At some work sites, one or more flaggers are posted at each end of the work zone to control traffic flow when one or more lanes are closed to traffic. When approaching a flagger, reduce speed immediately, and be prepared to follow the directions indicated in the diagram below. Drivers must stop when a flagger extends a red flag in a horizontal position into the line of traffic. Drivers may proceed at a reduced speed, only when directed by the flagger. If a flagger uses a signal paddle, the driver shall likewise stop or proceed slowly according to the “STOP” or “SLOW” message displayed on the sign. Also refer to Construction and Maintenance Worker Signs.

## Work Zone Safety Driving Tips

- Stay alert! Look for reduced speed limits, narrow driving lanes, and highway workers.
- Pay attention. Work zone signs will state exactly what to expect ahead.
- Merge early. If merging at first site of signs, traffic will flow more smoothly.
- Slow down. If speeding, slowed or stopped traffic will be encountered within seconds.
- Don't tailgate. Maintain a safe distance on all sides of your vehicle.
- Minimize distractions. The three C's – cell phones, CDs and coffee – are the primary causes of driver inattention.
- Plan ahead. Expect delays.

## Flagger Signals



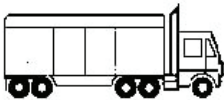
To Stop Traffic

Traffic Proceed

Alert and Slow Traffic

## Traffic Control Officers and Official Processions

- **Traffic Control Officers:** Because of special events, traffic congestion or other reasons, a law enforcement officer may direct traffic at specific intersections or in other situations. Always obey the command of a traffic control officer. A police officer's command may be different from a traffic signal or sign. In such a case, the traffic officer's command is the one that must be obeyed.
- **Official Processions:** Official processions, such as a funeral procession, have the right of way regardless of a traffic signal that indicates otherwise.

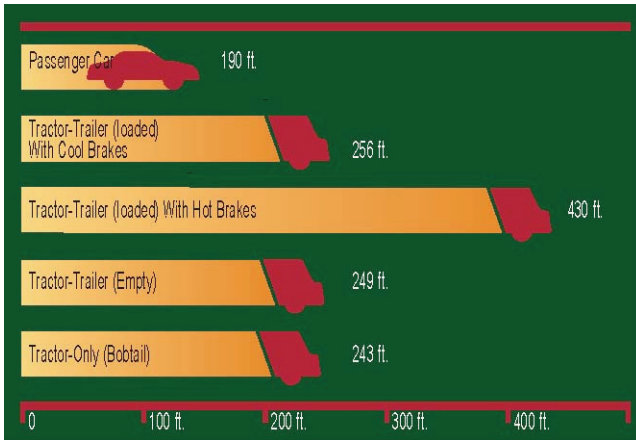


## Sharing the Road with Trucks

Most drivers do not understand how to share the road safely with large trucks. To reduce the chance of an accident with a large truck, motorists must be familiar with a truck's physical capabilities with respect to braking, turning, truck driver blind spots, and maneuverability. According to the National Highway and Traffic Safety Administration (NHTSA), one out of eight traffic fatalities result from a truck collision.

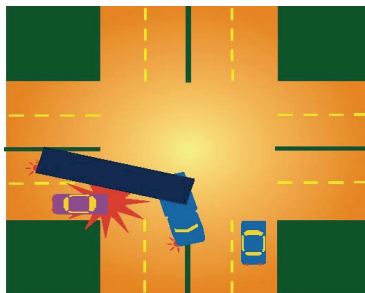
**Braking:** Trucks take longer to stop than a car traveling at the same speed. The average passenger car traveling at 55 mph can stop in about 130-140 feet (often taking 190 feet), almost half the length of a football field. A fully loaded tractor-trailer with hot brakes may take more than 400 feet to come to a complete stop, or more than the length of a football field. Therefore, it is advised that you do not make a sudden lane change and stop in front of a tractor-trailer vehicle.

**Average Total Stopping Distances\***



\*Distance based on a study of average braking distances by the Insurance Institute for Highway Safety and reaction distance recommended by the National Safety Council.

**Turning:** With any turning vehicle, the rear wheels follow a shorter path than the front wheels. The longer the vehicle, the greater the difference. That is why drivers of tractor-trailers often swing out to the left as the first step in making a tight turn. When following a tractor-trailer, watch its turn signals before trying to pass, especially to the right. If it appears to be moving to the left, wait a moment to check and see which way the driver is signaling and watch for a right turn.



**Blind Spots:** Trucks have much more severe blind spots than passenger cars. Many motorists falsely assume that a trucker can see the road better because he or she sits twice as high as the



driver of a car. While truckers do enjoy a better forward view and have bigger mirrors, they still have serious blind spots into which a car can completely disappear from view, up to 20 feet in front of the cab, on either side of the tractor-trailer, particularly alongside the cab, and up to 200 feet in the rear.

Motorists lingering in the blind spots on the sides and in the rear hamper a trucker's ability to take evasive action to avoid a dangerous situation.

**Maneuverability:** Trucks are designed to carry products long distances but are not designed to be as maneuverable as cars. Trucks have longer stopping and accelerating distances, a wider turning radius and weigh more. On multi-lane highways, tractor-trailers stay in the center lane to help the flow of local traffic on and off the highway. Staying in the middle lane also increases the truck driver's options if he or she has to switch lanes in order to avoid a dangerous situation or an accident.

The following is a list of some of the most common mistakes motorists must avoid when driving around trucks:

- **Don't** cut off a truck in traffic or on the highway to reach an exit or turn. Cutting into the open space in front of a truck removes the truck driver's cushion of safety. Trying to beat a truck to a single-lane construction zone creates a particularly dangerous situation. Take a moment to slow down and exit behind a truck. It will only take you a few extra seconds and will greatly reduce the risk of an accident.
- **Don't** linger alongside a truck when passing. Always pass a tractor-trailer completely and always on the left side. If you linger when passing the truck, your position makes it impossible for the trucker to take evasive action if an obstacle appears in the road ahead.
- **Don't** follow too closely or tailgate. When following behind a truck, if you cannot see the truck driver's rearview mirrors, there is no way the truck driver can see you. Tailgating a truck or a car is dangerous because you take away your own cushion of safety if the vehicle in front of you stops quickly. In addition, if the vehicle you are following hits something in the road, you will have no time to react before it hits the front of your car.
- **Never** underestimate the size and speed of an approaching tractor-trailer. Because of its large size, a tractor-trailer often appears to be traveling at a slower speed than it is. A substantial number of car-truck collisions take place at intersections, because the driver of the car does not realize how close the truck is or how quickly it is approaching.

**SAFETY TIP:** *Never stop too close to a truck on a hill. It can roll back and strike your vehicle.*

## Sharing the Road with Motorcycles, Bicycles and Other Vehicles

The National Highway Traffic Safety Administration (NHTSA) has developed standard language to inform the public of issues with regard to sharing the road with motorcycles.

### Important Tips about Motorcycles

- Motorcycles are vehicles with the same rights and privileges as any vehicle on the roadway.
- Allow the motorcyclist a full lane width. Although it may seem as though there is enough room in the traffic lane for an automobile and a motorcycle, remember the motorcycle needs the room to maneuver safely. Do not share the lane.
- Approximately one-half of all motorcycle crashes involve another motor vehicle. Nearly 40 percent were caused by the other vehicle turning left in front of the motorcyclist.
- Motorcycles are small and may be difficult to see. Motorcycles have a much smaller profile than vehicles which can make it more difficult to judge the speed and distance of an approaching motorcycle.
- Always signal your intentions before changing lanes or merging with traffic. This allows the motorcyclist to anticipate traffic flow and find a safe lane position.
- Remember that motorcyclists are often hidden in a vehicle's blind spot or missed in a quick look due to their smaller size. Always make a visual check for motorcycles by checking mirrors and blind spots before entering or leaving a lane of traffic and at intersections.
- Don't be fooled by a flashing turn signal on a motorcycle – motorcycle signals usually are not self cancelling, and riders sometimes forget to turn them off. Wait to be sure the motorcycle is going to turn before you proceed.
- Remember that road conditions which are minor annoyances to you pose major hazards to motorcyclists. Motorcyclists may change speed or adjust their position within a lane suddenly in reaction to road and traffic conditions, such as potholes, gravel, wet or slippery surfaces, pavement seams, railroad crossings, and grooved pavement.
- Allow more following distance, three or four seconds, following a motorcycle so the motorcyclist has enough time to maneuver or stop in an emergency. In dry conditions, motorcycles can stop more quickly than a car.

**NOTE:** *For more information on Motorcycle Safety, refer to the Motorcycle Operator Manual.*



## Bicycle Safety

Drivers must routinely share the roadway with bicycles. Bicycles are entitled to the same right of way and are required to observe the same traffic laws as operators of automobiles. However, with a large percentage of bicyclists being children, a driver cannot assume a child will adhere to the laws. The safe and wise driver of four-wheeled vehicles will adjust for this and allow more room for the bicyclist. Be aware that poor nighttime visibility presents special problems to drivers of four-wheeled vehicles where, in some cases, bicyclists will not have proper reflectors or lights.

### Bicycle Facts:

- In Indiana, the majority of bicycle accidents occurs during the five spring and summer months of May – September.
- Nationwide a bicyclist is killed in a traffic accident every 10 hours.

## Bicycle Safety Tips

Biking is fun and a great way to stay in shape. However, biking can become very dangerous on roadways, so stay safe by following these tips.

- **Always Wear a Helmet:** Bike helmets come in different shapes and sizes. When you shop for a helmet, be sure to look for:
  - A CPSC sticker, which indicates the helmet meets safety standards.
  - Proper fit. The helmet should sit level on your head and touch it all around.
  - A bright color to make you more visible to motorists.
- **Follow Traffic Rules:** Cyclists are required to follow the same traffic rules as automobiles when traveling on a roadway:
  - Obey all stop signs, traffic signals and other laws of driving.
  - Ride on the right side of the road, the same direction as traffic.
  - Use hand signals to indicate turns and slowing down.
- **Be Visible:** It is crucial that motorists and other cyclists can see you while riding. Always make sure you are properly visible:
  - Wear bright colored clothing and helmet.
  - At night, use a headlight; put reflectors on your pedals and wheels, and wear reflective clothing or tape.
  - Ride in the right third of the right travel lane so motorists will see you.
- **Ride Defensively:** Sharing the road with cars means you need to be alert and ride defensively:
  - Always check for oncoming traffic before entering an intersection or merging onto a road.

- Look behind you before changing lanes.
- Remember that pedestrians have the right of way.
- Beware of motorists turning left; many may misjudge your speed and turn too soon.
- Be cautious of cars passing on the right of a vehicle turning left.

Following these safety tips may help you prevent crashes or reduce your risk of injury in case of an accident. For more information about bicycle safety, check the National Bicycle Safety Network Web site at [www.cdc.gov/ncipc](http://www.cdc.gov/ncipc).



## Slow Moving Vehicles

Certain slow moving farm vehicles, construction equipment and vehicles drawn by animals may share our roadways. Driver should use care when approaching and passing these vehicles. Be alert for the special emblem that the driver must place on the rear of the slow moving vehicle, illustrated later in this chapter.

A rider of a horse or a horse-drawn vehicle has the same rights and responsibilities of a motor vehicle driver when riding on a public highway. Approach a rider with caution; avoid using the horn. Just as stopping for the driver of a motor vehicle who signals to stop, turn or pass, a driver should observe a hand signal from a horseback rider or horse drawn vehicle driver.

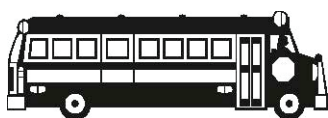


## Cell Phone Hazards

According to the National Highway Traffic Safety Administration (NHTSA), cellular phone use is a growing factor in crashes. In other words, too many people are driving while also having cell phone conversations. Using a cell phone while operating a vehicle impairs your ability to drive and can be hazardous. Successful defensive driving depends on concentrating on the road.

### Follow these safety guidelines when using a cell phone while driving:

- Always assess traffic conditions and, if possible, place calls when the vehicle is stopped and the phone within easy reach, while maintaining proper view of the road and all mirrors.
- Know how to use your cell phone, such as the memory dial function and voice-activated dialing, or consider obtaining a speaker phone option to free both hands while driving when possible to avoid taking your eyes off the road.
- DO NOT eat, drink, light a cigarette, read, or write while you talk and drive.
- DO NOT engage in stressful conversations, and always give driving full attention, even if it means ending a call.
- DO NOT read or send text message while driving.
- Allow voice mail to handle calls, and return them at your convenience.
- Know your own limits and, if you recognize that using a cell phone distracts you from driving, safely pull off the road when you are on the phone.



### School Bus Vehicle Requirements

School buses that transport students to or from school must meet the following requirements:

- Be painted chrome-yellow and display the words **School Bus** on the front and rear of the vehicle in black letters, at least eight inches high.
- Display two amber lights in front and rear to warn motorists that the bus is slowing down to stop to load or unload students, and two red lights in front and rear to indicate that the bus is stopped to load or unload students.
- Be equipped with amber turn signals.
- Be equipped with a stop arm which extends at least 18 inches from the side of the bus body and with a red octagonal stop sign with white letters to be extended while the bus is stopped on the roadway for the purpose of loading or unloading students.

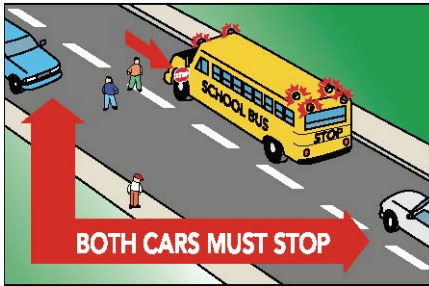
### Unloading Passengers

A school bus driver must load and unload students as close to the right hand curb or edge of the roadway as practical.

- **Stopping for School Buses:** Always stop whenever the red, octagonal stop sign arm extends from the left side of the bus when approaching from either direction. After stopping for a school bus, watch for children along the side of the road.



## School Buses



**NOTE:** You **DO NOT** need to stop if you and the school bus are going in the opposite directions on a road that has more than two lanes and is separated by a median strip not made for vehicle travel.

- **Maximum Speed Limits:** Per IC 9-21-5-14, the maximum speed of school buses and special purpose buses: Sec. 14 (a): A person may not operate a school bus or a special purpose bus at a speed greater than:
  - (1) 60 mph on a federal or state highway, or
  - (2) 40 mph on a county or township highway.(b) If the posted speed limit is lower than the absolute limits, or if the absolute limits do not apply, the maximum lawful speed of a bus is the posted speed limit.
- **Use for Non-School Functions:** School authorities may give permission, in writing, for a school bus to be used in transporting students for certain non-school functions as prescribed by law.
- **Special Purpose Buses:** A special purpose bus can be registered by public school corporations and private schools for transportation of students to extracurricular events. This vehicle is not to be used as a school bus. If a van, station wagon, or bus is transporting six (6) or more persons for extracurricular events, it must have a body change to Special Purpose and must be inspected by the Indiana State Police.



## Truck Requirements for Extended Loads

- **Loads Extending Beyond Rear of Trucks:** Motor vehicles transporting loads, which extend greater than four feet beyond the rear of the motor vehicle, or that have tailboards or tailgates extending more than four feet beyond the body, must have the projections marked as follows:
  - On each side of the projecting load, one red lamp or flag must be mounted, visible from the side, and located to indicate maximum overhang.
  - On the rear of the projecting load, two red lamps/flags, visible from the rear, one at each side; and two red reflectors visible from the rear, one at each side, must be mounted to indicate maximum width.
- **Vehicular Hazard Warning Flashing Lamps:** Every bus, truck and truck tractor shall be equipped with a signaling system. In addition to signaling turning movements, they shall have a switch or combination of switches that cause the two front turn signals and the two rear signals to flash simultaneously as a vehicular traffic signal warning. The signal shall be capable of flashing simultaneously with the ignition on or off.
- **Emergency Equipment on All Power Units:** Except for a lightweight vehicle, every bus, truck, tractor-trailer, and every driven vehicle in a tow operation must be equipped as follows:
  - **Fire extinguisher:** A fire extinguisher should be properly filled and located so that it is readily accessible for use. It must be securely mounted on the vehicle, and must be designed and maintained to permit visual determination of whether it is fully charged.
  - A power unit that is used to transport hazardous materials must be equipped with a **fire extinguisher** having an Underwriters' Laboratories rating of 10-B: C or more
  - A power unit that is not used to transport hazardous materials must be equipped with either:
    - A **fire extinguisher** having an Underwriters' Laboratories rating of 5-B: C or more; or
    - **Two fire extinguishers**, each of which has an Underwriters' Laboratories rating of 4-B: C or more.
- **Spare Fuses:** There must be at least one spare fuse or other overload protective device if the devices used are not of a reset type, for each kind and size used.
- **Warning Devices for Stopped Vehicles:** A driver of a truck, bus or tractor trailer that is disabled on a traveled roadway or its shoulder must display one of the following combinations of warning devices, upon stopping:

- **During daylight hours**, use bi-directional emergency reflective triangles or red flags in place of flares, reflectors, or electric lanterns. Under these conditions, no flare is required on the traffic side of the disabled vehicle.
  - Three bi-directional emergency reflective triangles that conform to the requirements of Federal Motor Vehicle Safety Standard No. 125, or at least 6 fuses or 3 liquid-burning flares displayed as follows:
    - On the traffic side of the vehicle, in the direction of the nearest approaching traffic, place a lighted flare/fuse, lighted red electric lantern, or portable red emergency reflector.
    - As quickly as possible, place the emergency devices in the following order:
      - One device approximately 100 feet from the disabled vehicle toward approaching traffic (200 feet on divided highway, and at least 500 feet if stalled within 500 feet of a curve, hillcrest, or other area where a driver's view of your vehicle may be blocked).
      - One device approximately 100 feet from the disabled vehicle in the opposite direction (200 feet on divided highways, and at least 500 feet if stalled within 500 feet of a curve, hillcrest, or other area where a driver's view of your vehicle may be blocked). Place each device in the center of the traffic lane occupied by the disabled vehicle and one at the traffic side of the vehicle.

**NOTE:** Liquid-burning flares, fuses, oil lanterns, or any signal produced by a flame shall not be carried on any commercial motor vehicle transporting Division 1.1, 1.2, 1.3 (explosives) hazardous materials, any cargo tank motor vehicle used for transporting of Division 2.1 (flammable gas), or Class 3 (flammable liquid) hazardous materials whether loaded or empty; or any commercial motor vehicle using compressed gas as a motor fuel.

## Size Limitations for Commercial Vehicles Without a Special Permit

Maximum width:	8 feet, 6 inches
Maximum height of any vehicle	13 feet, 6 inches
Maximum length of any single vehicle	40 feet
Maximum length of 2-vehicle combination	60 feet
Maximum length of 3-vehicle combination	65 feet
Maximum length of any recreational vehicle	45 feet
Maximum length of a semi-trailer	28 feet, 6 inches
Maximum length of any tractor trailer, semi-trailer combination	28 feet, 6 inches
Maximum distance allowed between coupled or towed vehicle	15 feet

### Maximum Weight Limits

You may not move any vehicle or combination with a gross weight over 80,000 pounds on any highway without a special permit. Vehicle weight must be distributed within the following limits:

Maximum single axle weight	20,000 lbs.
Maximum wheel weight	800 lbs. per inch width of tire rim
Maximum tandem axle weight	16,000 lbs. per axle

The Federal bridge formula may restrict gross weight on shorter wheel-based vehicles. Overweight trucks may be impounded by law enforcement.

- **Special Permits:** Before moving loads on public highways that exceed the size and weight limits described above, you must secure a special permit from the Indiana Department of Revenue for state-maintained routes, and from local authorities for routes that are not maintained by the state.
- **Limitations:** It is illegal to operate any vehicle that has a gross weight greater than that posted by the local road authority on any road, bridge, or structure, having jurisdiction in that area. This includes locally established “frost” laws.

### Following Too Close

A truck or tractor-trailer combination may not follow another tractor or tractor-trailer combination closer than 300 feet, except when overtaking to pass, or when traveling on a non-interstate roadway within a business or residence district.

### Required Lighting Equipment

Every truck and bus must have two headlamps, one rear white license plate lamp, two red tail lamps, and at least one red stop lamp. To show vehicle width at night, every truck or bus that is 80 inches in width or wider must have four clearance lamps: one amber lamp at each side of the front, and one red lamp at each side of the rear.